REMARKS

Claims 1-40 are currently pending. Claims 1, 3 and 37 have been amended, and new claim 40 has been added. Reconsideration of the above-captioned application is respectfully requested.

At the outset, it was observed that the December 18, 2002 Office Action did not include an acknowledgment that copending U.S. Patent Application No. 09/617,089 has been considered by the Examiner. Copending U.S. Patent Application No. 09/617,089 was submitted with the Information Disclosure Statement filed on February 20, 2002, and page 2 thereof included a request for acknowledgment of consideration. It is respectfully requested that the Office acknowledge that copending U.S. Patent Application No. 09/617,089 has been considered by the Examiner.

The Office Action includes an objection to the specification for alleged informalities. The specification has been amended as requested by the Examiner. Withdrawal of the objection is respectfully requested.

The Office Action includes a rejection of claims 1-3, 13-17, 37 and 39 under 35 U.S.C. § 102(b) as allegedly being anticipated by the Villeneuve et al. patent (U.S. Patent No. 5,825,792). Independent claims 1, 3 and 37 have been amended. Applicants respectfully submit that claims 1-3, 13-17, 37 and 39 are not anticipated by the Villeneuve et al. patent.

Independent claim 1 recites a wavelength monitor comprising a cylindrical lens configured to allow a laser beam emitted from a semiconductor laser to pass therethrough, first and second photodetectors configured to receive the laser beam passed through the

cylindrical lens, and a wavelength filter disposed in an optical path between the semiconductor laser and the first photodetector. Claim 1 further recites that the wavelength filter is disposed outside an optical path between the semiconductor laser and the second photodetector. Thus, an optical path between the semiconductor laser and the first photodetector has the wavelength filter disposed therein, but an optical path between the semiconductor laser and the second photodetector does not have the wavelength filter disposed therein.

In contrast, Figure 5 of the Villeneuve et al. patent illustrates an optical path between the laser 112 and the diode 122 and an optical path between the laser 112 and the diode 120, and both optical paths have the etalon 118 disposed therein. Accordingly, claim 1 is not anticipated by the Villeneuve et al. patent for at least this reason. Withdrawal of the rejection and allowance of claim 1 are respectfully requested. Claim 2 is allowable at least by virtue of dependency, and allowance of claim 2 is respectfully requested.

With regard to independent claim 3, distinctions similar to those described above for claim 1 exist between subject matter recited in claim 3 and the subject matter disclosed in the Villeneuve et al. patent. Accordingly, claim 3 is not anticipated by the Villeneuve et al. patent for at least this reason. Withdrawal of the rejection and allowance of claim 3 are respectfully requested. Claims 4-36 and 38 depend from claim 3 are allowable at least by virtue of dependency. Allowance of claims 4-36 and 38 is respectfully requested.

Independent claim 37 recites a semiconductor laser device comprising a semiconductor laser configured to emit a laser beam, a cylindrical lens configured to allow a laser beam emitted from a semiconductor laser to pass therethrough, detecting means for

detecting the laser beam passed through the cylindrical lens, and intensity changing means for changing the intensity of a portion of the laser beam depending upon the wavelength of the laser beam, the intensity changing means being disposed in an optical path between the semiconductor laser and the detecting means. Claim 37 further recites that the intensity changing means is disposed such that another portion of the laser beam is detected by the detecting means without impinging upon the intensity changing means.

In contrast, the Villeneuve et al. patent does not disclose intensity changing means disposed such that another portion of the laser beam is detected by the detecting means without impinging upon the intensity changing means as claimed in claim 37. In particular, the portions of the laser beam detected by diodes 120 and 122 in Figure 5 of the Villeneuve et al. patent impinge upon the etalon 118. Claim 37 is not anticipated by the Villeneuve et al. patent for at least this reason. Withdrawal of the rejection and allowance of claim 37 are respectfully requested.

Independent claim 39 recites a method of monitoring the wavelength of a laser beam emitted by a semiconductor laser, comprising directing a laser beam through a cylindrical lens, thereby forming a uniaxially converged laser beam, directing a first portion of the uniaxially converged laser beam through a wavelength filter to a first photodetector, and directing a second portion of the uniaxially converged laser beam to a second photodetector. The method further comprises determining a signal intensity ratio of a first signal intensity measured by the first photodiode to a second signal intensity measured by the second photodiode and comparing the signal intensity ratio to a reference signal intensity ratio that corresponds to a preset wavelength.

In contrast, the Villeneuve et al. patent does not disclose determining a signal intensity ratio of a first signal intensity measured by the first photodiode to a second signal intensity measured by the second photodiode and comparing the signal intensity ratio to a reference signal intensity ratio that corresponds to a preset wavelength as claimed in claim 39. Rather, the Villeneuve et al. patent discloses taking the differential output of two photodetectors generated by a change in transmission of a filter element with a change in wavelength and using this differential output in a feedback loop to stabilize the wavelength of a laser source (column 7, lines 63-67). Claim 39 is not anticipated by the Villeneuve et al. patent for at least this reason. Withdrawal of the rejection and allowance of claim 39 are respectfully requested.

The Office Action includes, as set forth in paragraphs 5-11, a number of rejections pertaining to dependent claims 4-12, 18-36 and 38 as allegedly being unpatentable over the Villeneuve et al. patent itself or unpatentable over the Villeneuve et al. patent in view of specified secondary references (U.S. Patent No. 5,095,476 to Greve et al.; U.S. Patent No. 5,224,084 to Takahashi; U.S. Patent No. 3,951,509 to Noguchi et al.; and U.S. Patent No. 6,272,157 to Broutin et al.). Claims 4-12, 18-36 and 38 depend either directly or indirectly from claim 3. Moreover, as discussed above, claim 3 recites subject matter not disclosed in Villeneuve et al. patent. The Office's reliance upon the above-noted secondary references does not make up for the above-noted deficiencies of the Villeneuve et al. patent pertaining to claim 3. Accordingly, claims 4-12, 18-36 and 38 are allowable at least by virtue of dependency. Withdrawal of the rejections and allowance of claims 4-12, 18-36 and 38 are respectfully requested.

Claim 40 has been added to round out the scope of protection being sought. Claim 40 is allowable at least by virtue of dependency and also at least for reasons similar to those set forth with regard to claim 1. Allowance of claim 40 is respectfully requested.

In light of the foregoing, withdrawal of the objections and rejections of record are respectfully requested so that the present application may pass to issuance. Should there be any questions in connection with this application, the undersigned respectfully requests that he be contacted at the number given below.

Respectfully submitted,

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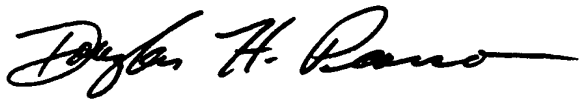
By: 

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Attachment to Amendment

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Page 19, Paragraph Beginning at Line 18:

Fig. 5 shows a plan view of beam receiving faces of four photodiodes of an exemplary monolithic photodiode device 15 according to a third embodiment. As shown in Fig. 5, the monolithic photodiode device 15 is arranged in place of the first and second photodiodes 5 and 6. The monolithic photodiode device 15 is obtained by forming beam receiving faces of four photodiodes 16 to [18] 19 on a monolithic photodiode substrate. The photodiodes 18 and 19 functioning as the second photodiode 6 are placed adjacent to photodiodes 16 and 17 functioning as the first photodiode 5. The photodiodes 16 and 17 are arranged adjacent to each other in the X direction, and the photodiodes 18 and 19 are arranged adjacent to each other in the X direction.

Page 25, Paragraph Beginning at Line 6:

Fig. 7 shows a plan view of semicircular beam receiving faces of two photodiodes of a monolithic photodiode device according to a fifth embodiment. As shown in Fig. 7, a monolithic photodiode device 23 is arranged in place of the first and second photodiodes 5 and 6. The monolithic photodiode device 23 is obtained by forming semicircular beam receiving faces of two photodiodes 24 and 25 on a monolithic photodiode substrate. The photodiode 25 functioning as the second photodiode 6 of the first embodiment is placed adjacent to the photodiode 24 functioning as the first photodiode 5 of the first embodiment. The beam receiving faces of the photodiode have chord edges 24a and 25a extending in the

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X direction perpendicular to both the optical axis (Z direction) and the photodiode arranging direction (Y direction), and the chord edges 24a and [25b] 25a of the photodiodes 24 and 25 face each other. Therefore, a group of the photodiodes 24 and 25 of the monolithic photodiode device 23 is formed approximately in a circular shape. Because the laser beam emitted from the semiconductor laser 1 is formed approximately in a circular shape, the shape of the laser beam approximately matches the shape of the beam receiving faces of the photodiodes 24 and 25. Therefore, the signal laser beam 2 emitted from the semiconductor laser 1 can be efficiently received by the beam receiving faces of the photodiodes 24 and 25 of the monolithic photodiode device 23.

Attachment to Amendment

Marked-up Claims 1, 3 and 37

1. (Amended) A wavelength monitor, comprising:

a cylindrical lens configured to allow a laser beam emitted from a semiconductor laser to pass therethrough;

first and second photodetectors configured to receive the laser beam passed through the cylindrical lens; and

a wavelength filter disposed in an optical path between the semiconductor laser and the first [photo detector] photodetector,

wherein the wavelength filter is disposed outside an optical path between the semiconductor laser and the second photodetector.

3. (Amended) A semiconductor laser device, comprising:

a semiconductor laser configured to emit a laser beam;

a cylindrical lens configured to allow the laser beam emitted from the semiconductor laser to pass therethrough;

first and second photodetectors configured to receive the laser beam passed through the cylindrical lens; and

a wavelength filter disposed in an optical path between the semiconductor laser and the first [photo detector] photodetector,

wherein the wavelength filter is disposed outside an optical path between the semiconductor laser and the second photodetector.

Attachment to Amendment

Marked-up Claims 1, 3 and 37

37. (Amended) A semiconductor laser device, comprising:

a semiconductor laser configured to emit a laser beam;

a cylindrical lens configured to allow a laser beam emitted from a semiconductor laser to pass therethrough;

detecting means for detecting the laser beam passed through the cylindrical lens; and

intensity changing means for changing the intensity of a portion of the laser beam depending upon the wavelength of the laser beam, the intensity changing means being disposed in an optical path between the semiconductor laser and the detecting means such that another portion of the laser beam is detected by the detecting means without impinging upon the intensity changing means.